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# THE IDENTITY OF CAPTAIN COOK'S KANGAROO

By T. C. S. MORRISON-SCOTT and F. C. SAWYER

## INTRODUCTION

THE identity of the kangaroo discovered by Captain Cook's expedition in 1770 has lately been the subject of some dispute. For years this kangaroo has been referred to as *Macropus giganteus* (Zimmermann, 1777) and was thought to have been the Great Grey Kangaroo, until Iredale & Troughton (1925) not only pointed out that *giganteus* is antedated by *Mus canguru* Müller, 1776, which was based on the description and plate given in Hawkesworth's (1773) account of Cook's voyage, but also threw doubt on whether Captain Cook's kangaroo was in fact the Great Grey Kangaroo.

The ship's company of H.M.S. *Endeavour* included Sir Joseph Banks who brought with him Dr. Solander as naturalist and Sydney Parkinson as draughtsman. Iredale & Troughton (1925) published a transcript of Solander's manuscript Latin description of the kangaroos obtained by Captain Cook's party at Endeavour River (the future site of Cooktown) in June and July 1770—a description which, as Iredale & Troughton pointed out, does not accord too well with the Great Grey Kangaroo. They supported their contention that the animals in question were not Great Grey Kangaroos with the statement that the latter do not occur at or near Cooktown. Even if this were true the argument would not be valid, since the non-occurrence of the species at Cooktown nowadays does not preclude its possible occurrence there in 1770, when the country was quite undeveloped. But in fact Raven (1939) records that the Great Grey Kangaroo occurred within thirty miles of Cooktown in 1897, and Tate informs us (*in litt.*) that he obtained three specimens about fifteen miles from Cooktown in 1947.

Iredale & Troughton, though satisfied in their own minds that Captain Cook's kangaroo is not conspecific with the Great Grey Kangaroo, were unable to decide its identity but suggested that the weight of evidence pointed to a form of the *robustus* series.

The same authors (1937) next published a paper in which they sought to show that Captain Cook's kangaroo was a northern representative of the Whiptail, or Pretty-face Wallaby—usually known as *Macropus (Protemnodon) parryi* Bennett, but which they hold should be called *Wallabia elegans* Lambert. This contention rests on rather insecure foundations. Briefly, the argument is that in 1929, or thereabouts, two skins were purchased in the neighbourhood of Cooktown and that Solander's description, they say, agrees with one of these which was a Whiptail—the other skin being that of a Wallaroo of the *antilopinus* type. But it is not at all clear why Cook's kangaroo must necessarily be restricted to one of the two species represented by these two purchased skins, nor is it clear why Iredale & Troughton abandoned their previous conclusions that the weight of evidence pointed to Cook's kangaroo having been a form of *robustus*.

The next stage in the controversy was a paper by Raven (1939), who holds that the evidence is decidedly against Cook's kangaroo having been a Whiptail, or Pretty-face Wallaby. With this the present writers concur. Raven further holds that the evidence supports the view that the early revisers were right in identifying Cook's kangaroo with the Great Grey Kangaroo and pleads the confusion caused by upsetting this position.

Finally Tate (1948), in the course of his review of the Macropodidae, dismissed the Whiptail theory of Iredale & Troughton and agreed with Raven that, *inter alia*, the hip stripe and face stripe of the Whiptail are too diagnostic to have been omitted from the contemporary plate and descriptions of Cook's kangaroo had the animal in fact been a Whiptail. Tate added that the only really large species of Macropodidae that conceivably could have been found near Cooktown are the Great Grey, the Red, and *Macropus robustus reginae* Schwarz, one of the antilopine group. He dismissed the second and third on grounds of colour and decided that the description and plate in Hawkesworth (1773)—and hence Captain Cook's kangaroo and *Mus canguru* Müller, 1776—agreed most closely with the Great Grey Kangaroo.

Tate avoided discussion of Solander's manuscript description, but since Solander was on board Cook's ship in his capacity as a naturalist, what he has said on the subject of the kangaroos must be examined. Here, however, we are straightway confronted with a difficulty.

Iredale & Troughton (1937) say that Solander's description was based upon the small male first captured, and Troughton (1946: 202) repeats the contention, saying that it is indisputable that it applies only to an apparently adult male weighing 38 pounds. But far from being indisputable it is not at all clear why these authors take this view at all, unless it is because the only measurements given are those of the male which Mr. Gore shot on 14 July 1770 (Solander gives the weight of this animal as 24 pounds; the difference between this and the 38 pounds of the other accounts may be the difference between the 'clean' and 'dead weight'). But Solander gives the weights of all three animals taken, and the description itself is clearly a composite one since both male and female genitalia are described and also the mammae, and Solander says that the size of the animal varies with age. Nor is it clear why Troughton refers to the 38-pound animal as apparently adult when Solander says that it was possibly two or three years old. Solander's estimate of its years may not be reliable, but he was basing his view that it was not adult on the condition of the molar teeth, as will be seen from his discussion of the latter.

But on top of this, Solander may well have had three separate species as well as three separate specimens in front of him as he wrote, and it is not possible to say which animal he had most in mind while describing the various characters. He might well have been making a qualitative average of the characters of all three. So Solander is not much help in arriving at the identity of Cook's kangaroo and any deductions drawn from his description should be treated with reserve. With this in mind it can be said that in two particulars Solander's description does not encourage any leanings towards the Great Grey theory. The rhinarium is described as 'Rostrum breviusculum, parum compressum; apice inter nares nudum ibique cute aterrima rugulosa vestitum'. But the Great Grey Kangaroo has hairy skin between the nostrils. Then again the

upper incisors are described as 'Incisores sex, approximati, lati: primum par leviter bilobum; secundum integrum; tertium latius crassiusque, bilobum: lobis anticis minoribus'. Iredale & Troughton on the one hand, and Raven on the other, perform some agile juggling with the Latin text in support of their respective theses, but what Solander says is that the third upper pair of incisors are bilobed and that the anterior lobes are the smaller, thus suiting neither the Whiptail theory nor the Great Grey theory. However, as has already been indicated, Solander's description cannot be treated as a reliable guide in the quest for Captain Cook's kangaroo.

The controversy has so far been argued in terms of Solander, Hawkesworth, and a skin obtained near Cooktown 160 years after Cook was there. It seems strange that no attempt appears to have been made to find the original specimens, especially as Iredale & Troughton (1925), quoting Hunter (1790), drew attention to the probability of a skull which Banks gave to Hunter being in the Museum of the Royal College of Surgeons. Iredale & Troughton also drew attention to the probability of a pencil drawing by Parkinson being preserved in the British Museum. But they did not pursue these two lines of research on which we now report.

#### DRAWINGS BY SYDNEY PARKINSON AND NATHANIEL DANCE

It seems certain that the plate of Captain Cook's kangaroo published by Hawkesworth (1773) was based on a drawing by Sydney Parkinson, the draughtsman in Banks's employ on board H.M.S. *Endeavour*. Search has been made in the British Museum (Natural History), and though the original of Hawkesworth's plate has not been found there are two rough sketches of kangaroos signed 'S. Parkinson' and marked in his hand 'Kangura Endeavour's River'. On the back of one of these Parkinson has added, 'The whole body pale ash colour the ears excepting the base fine speckled gray iris of the eye Chestnut'. It was the practice of Parkinson, and other artists who accompanied Cook on his voyages, to make pencil sketches of animals seen, together with notes on the details of coloration, &c., the intention being to paint these in at a later date. In Parkinson's case, due to his death before the end of the voyage, many of the sketches were never completed. These drawings are inadequate for purposes of identification but we consider them of sufficient interest to warrant publication (Pl. 3).

Of much greater interest, however, is a wash drawing of a complete kangaroo skull and another of its lower jaw shown separately (Pl. 4). These are signed 'N. Dance' and are among the collection of Parkinson drawings which came to the British Museum from Sir Joseph Banks's library. Dryander (1748-1810), in his manuscript catalogue of the drawings of animals in Banks's library, has the following entry on page 21:

Mammalia — Glires,	KANGURU
— K .....	N.C. S. Parkinson
x .....	Cranium Nath. Dance

The '—' is Dryander's symbol for a pencil drawing and the 'x' for a coloured one; 'N.C.' stands for Nova Cambria, as that part of Australia was called in those days.

Sir Nathaniel Dance (1735-1811) was a celebrated portrait painter with a reputa-

tion for accuracy as a draughtsman. Captain Cook sat to him for his portrait in 1776 (*vide* Kitson, 1907), after which year Dance appears to have given up painting.

There is no indication of the scale of the drawing, but by analogy with the series of Parkinson drawings it seems likely that the skull is drawn life-size. The skull and lower jaw are both represented on a single folio sheet. Parkinson's drawings are also on folio sheets and his practice was to draw objects life-size except where they were too big for the paper. In this case he reduced them, but he did not make drawings larger than life-size. This seems to have been the general practice of the time. The point is not pressed, but if Dance's drawing is life-size, then it is likely to be that of the skull of the 84-pound kangaroo shot<sup>1</sup> on 27 July 1770; the other two beasts, one shot by Lieutenant Gore on 14 July and another caught by Banks's greyhound on 29 July, were smaller.

The skull drawn by Dance appears to be that of a young *Macropus robustus*. We have been unable to trace the skull itself.

#### ANOTHER OF CAPTAIN COOK'S SPECIMENS

John Hunter, in his observations on animals in White's *Journal* (1790), says: 'Of the Kangaroo . . . the only parts at first brought home were some skins and skulls; and I was favoured with one of the skulls from Sir Joseph Banks.' The posthumous papers of Hunter (1728-93) edited by Owen (1861) contain the same words, but Owen has added a footnote to the last sentence quoted above, which reads: 'No. 1732 Hunt. Osteol.'

Professor Wood-Jones has searched for this skull in the Museum of the Royal College of Surgeons but it cannot be found, and appears to have been destroyed by bombs along with many other Hunterian specimens during the 1939-45 War. However, he drew our attention to a figure of a skull in a paper on the history of surgery by Webb-Johnson (1939). The text to this figure says: 'Kangaroo's skull, from the Hunterian collection brought from Australia ("New Holland") by Sir Joseph Banks when with Captain Cook's Expedition, 1768-71.' The figure itself is a reproduction of a photograph and it shows quite clearly the number '3703' painted on the skull. Flower's catalogue (1884) makes it plain that No. 3703 is the same specimen as No. 1732 in Owen's catalogue (1853). Webb-Johnson's figure is small and not very clear, but Professor Wood-Jones went to much trouble and eventually found a lantern slide of the same photograph. This slide (Pl. 5) is probably one Webb-Johnson had made when he read his paper in 1939. The skull it represents is clearly not the same as the one drawn by Dance and it appears to be slightly younger, an impression which is borne out by the description of its dentition in Owen's catalogue (1853). The skull is from one of the three animals obtained at Endeavour River in 1770 and is probably that of the 38-pound animal shot by Lieutenant Gore on 14 July 1770.

As will be seen from Plate 5, the skull is a young one and the incisors are missing. In view of its important bearing on the nomenclature of the genus *Macropus*, we sent the photograph to Dr. G. H. H. Tate, who has recently (1948) monographed the

<sup>1</sup> By Lieutenant Gore, according to the journal of Midshipman John Bootie, who records the weight as 80 pounds.

kangaroos, and himself collected specimens in the neighbourhood of Cooktown. We are indebted to him for his detailed report on this skull which he unhesitatingly refers to the Great Grey Kangaroo—amongst other characters the short ante-orbital canal and the 'zog' in the maxillo-premaxillary suture being particularly characteristic.

#### CONCLUSION

Captain Cook's first expedition to Australia obtained three specimens of kangaroo, all from Endeavour River, Queensland, July 1770. The skull of one of these was still preserved in the Museum of the Royal College of Surgeons in 1939 but was destroyed by bombs during the late war. No trace of the other material has been found.

The only figure of the original material hitherto generally known to zoologists is the plate in Hawkesworth (1773) of a not easily determinable kangaroo, or reproductions of it. Four more figures are now published. The first two are indeterminable outline drawings of the whole animal by Parkinson, who was on board Cook's ship. The third is a painting of a skull by Nathaniel Dance. This is almost certainly the skull of one of Cook's specimens; in fact it is difficult to see where else it could have come from. It is the skull of a Wallaroo of the *Macropus robustus* series.

The fourth is a photograph (Pl. 5) of the specimen which was destroyed in the Museum of the Royal College of Surgeons. This skull was from one of the kangaroos obtained by Cook's party at Endeavour River in July 1770. It was given by Banks to Hunter and is No. 1732 in Owen's catalogue (1853) and No. 3703 in Flower's catalogue (1884). It is the skull of a young Great Grey Kangaroo and we hereby designate it as the photo-lectotype of *Macropus canguru* (Müller, 1776)—'Captain Cook's Kangaroo'.

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PLATE 3

FIGS. 1 AND 2. Pencil sketches by Sydney Parkinson of kangaroos seen at Endeavour River, Queensland, in July 1770. (Preserved in the Zoological Library of the British Museum (Natural History))



FIG. 1



FIG. 2

PLATE 4

FIG. 3. Wash drawing by Nathaniel Dance of the skull of a young kangaroo (*Macropus robustus* subsp.) obtained at Endeavour River, Queensland, in July 1770

FIG. 4. Lower jaw of the skull in Fig. 3





FIG. 3

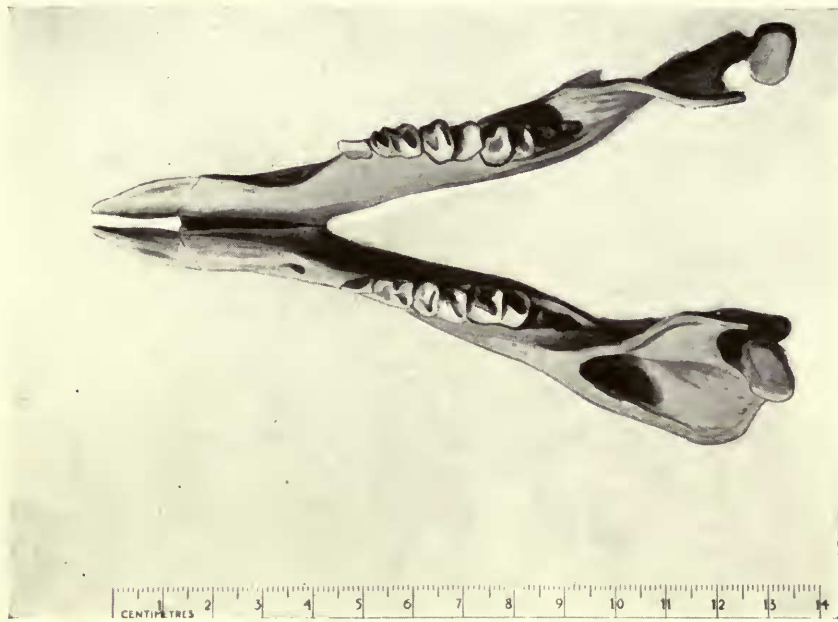


FIG. 4

PLATE 5

FIG. 5. Photograph of the skull of a young Great Grey Kangaroo obtained at Endeavour River, Queensland, by Captain Cook's party in July 1770. This plate is the photo-lectotype of *Macropus canguru* (Müller). The specimen, which no longer exists, was number 1732 in Owen's Catalogue (1853) and number 3703 in Flower's Catalogue (1884). Scale unknown



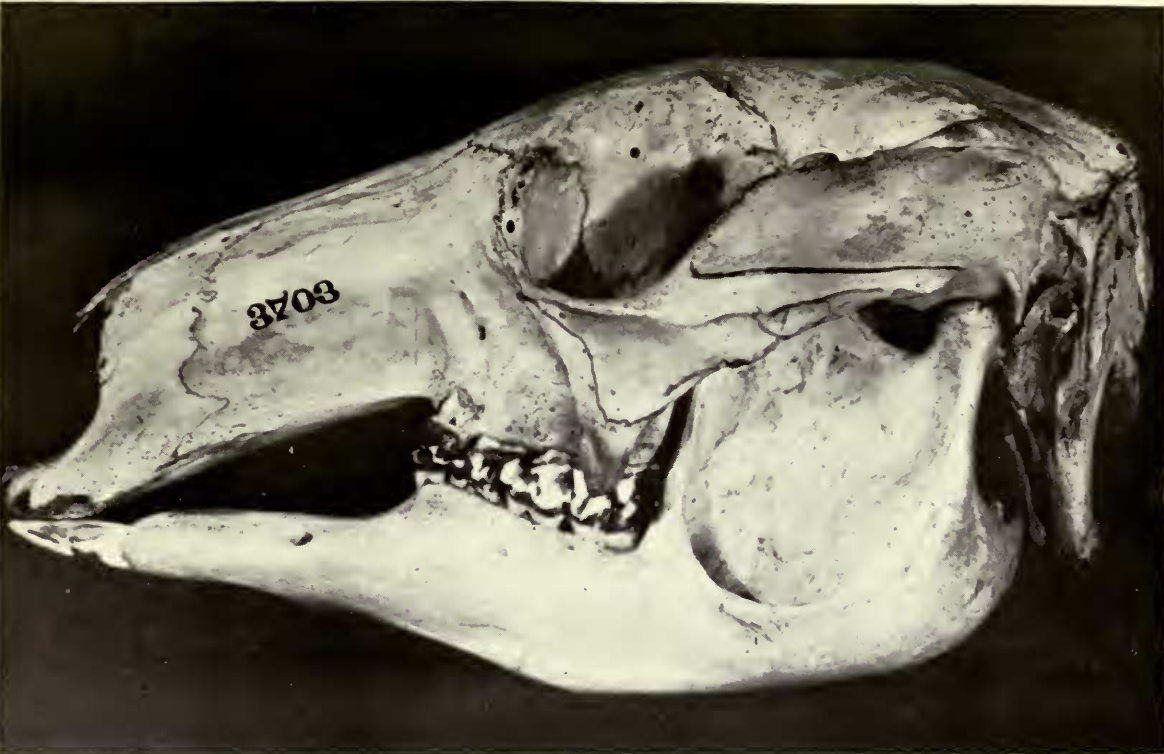


FIG. 5